Applicant: Katia Georgopoulos et al. Attorney's Docket No.: 10287-031001 / MGH 1001.3

Serial No.: 09/019,348 Filed: February 5, 1998

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### **REMARKS**

Claims 37 has been canceled. Claims 18, 27, 29 and 35 have been amended. The amendments are supported throughout the application as filed, e.g., at page 50, line 17 to page 51, line 14; and Figure 2 and its accompanying description, as amended in the amendment accompanying the sequence listing filed on June 11, 2001. No new matter has been added. Upon entry of this amendment, claims 18-36 and 38-44 will be pending.

## Rejections Under 35 U.S.C. §112, First Paragraph

#### Enablement

Claims 18-44 are rejected for alleged lack of enablement. The Examiner contends that "only a claim drawn to deregulating the Aiolos gene in pro-B cells that are specific for the administered antigen would reasonably be enabled." This rejection has been met by amending the claims to correspond to the Examiner's admitted scope of enablement. As presently amended, the claims recite that the mammal (a) has a pro-B cell which is Aiolos (SEQ ID NO:2 or 30) deregulated and (b) is immunized with an antigen recognized by the pro-B cell. Claim 37 has been canceled. Accordingly, Applicants respectfully request that this grounds of rejection be withdrawn.

# Written Description

Claims 18-44 are rejected as "containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that that the inventor(s), at the time the application was filed, had possession of the claimed invention." The Examiner states that "there is insufficient written description to show that Applicant was in possession of any 'Aiolos' which will be able to deregulate pro-B cell proliferation other than SEQ ID NOS 2 and 8." This rejection is traversed, in part, and has been met, in part.

Applicants note that SEQ ID NO:2 is mouse Aiolos; SEQ ID NO:8 is human Aiolos; and SEQ ID NO:30 (see, e.g., Figure 2 of the application) is chicken Aiolos. Applicants submit that these three species of Aiolos are fully representative of the Aiolos genus. However, in order to

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expedite prosecution, Applicants have amended claim 18 to recite mouse or chicken Aiolos sequences (SEQ ID NO:2 or 30). Claims 29 and 35 now recite SEQ ID NO:2 as they are limited to mouse Aiolos. Accordingly, Applicants respectfully request that this grounds for rejection be withdrawn.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant submits that all the pending claims are in condition for allowance. Enclosed is a Petition for Extension of Time with the required fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Attorney's Docket No.: 10287-031001 / MGH 1001.3

Date: 24 October

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# Version with markings to show changes made

### In the claims:

Claim 37 has been canceled.

Claims 18, 27, 29 and 35 have been amended as follows:

18. (Amended) A method of obtaining an antibody, comprising:
providing a mammal that (a) has a pro-B cell which is Aiolos (SEQ ID NO:2 or 30)
deregulated and (b) is immunized with an antigen recognized by the pro-B cell; and
isolating an antibody against the antigen from the mammal or from a [hematopoietic] B
cell derived from the mammal, to thereby obtain an antibody.

- 27. (Amended) The method of claim 18, the method further comprises isolating one or more [hematopoietic] B cells from the mammal and isolating the antibody therefrom.
- 28. (Amended) The method of claim 18, wherein the [hematopoietic] <u>B</u> cell from the animal is fused with a second cell to provide a hybridoma and the antibody is isolated from the hybridoma.
- 29. (Amended) A method of obtaining an antibody comprising: providing a mouse that (a) has a <u>pro-B</u> cell which is homozygous for null or underexpressing mutations at the Aiolos (<u>SEQ ID NO:2</u>) locus and (b) is immunized with an antigen <u>recognized by the pro-B cell</u>; and

isolating an antibody against the antigen from the mouse, to thereby obtain an antibody.

35. (Amended) A method of obtaining a monoclonal antibody, comprising: providing a mouse that (a) has a <u>pro-B</u> cell which is homozygous for null or underexpressing mutations at the Aiolos (SEQ ID NO:2) locus and (b) is immunized with an antigen <u>recognized by the pro-B cell</u>;

isolating a [hematopoietic] B cell from the mouse; and

isolating an antibody against the antigen from the [hematopoietic]  $\underline{B}$  cell or a derivative of the cell, to thereby obtain an antibody.